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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/550,028	07/14/2006	Tsuyoshi Okamoto	053044	7366

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EXAMINER	
VASISTH, VISHAL V	
ART UNIT	PAPER NUMBER
1797	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/550,028	OKAMOTO ET AL.	
	Examiner	Art Unit	
	VISHAL VASISTH	1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 July 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 and 3-13* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 and 3-13* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 1 and 3-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hashimoto et al., US Patent No. 6,383,991 (hereinafter referred to as Hashimoto) in view of Takeshi et al., JP Publication No. 2002-69470 (hereinafter referred to as Takeshi).

Hashimoto discloses an oil composition comprising a polyether represented by the formula:

$$R_1O(EO)_m(AO)_nR_2$$

wherein each of R_1 and R_2, which may be identical or different, is hydrogen or a hydrocarbon group having 1 to 24 carbon atoms and at least one is a hydrocarbon group; EO is oxyethylene group; AO is an oxyethylene group having

3 or 4 carbon atoms; and each of m and n is 1 to 50, wherein a sum of m and n is from 4 to 100. When in the formula above R_1 is hydrogen, EO is an oxyethylene group (which reads on (OA^2) of instant claim 1 and claim 4), AO is an oxyalkylene group having 4 carbon atoms (which reads on ($OCH_2CH_2CH_2CH_2$) of instant claim 1) and R_2 is a hydrocarbon group having 1 to 24 carbon atoms (which reads on R^1 being a residue with at least one hydroxyl group removed from a compound with a carbon number of 1 to 24 having 1 to 6 hydroxyl groups as recited in instant claim 1 and R^1 being a residue such that all hydroxyl groups are removed as recited in claim 3).

Based on the formula above n = 0 (as recited in claim 1 wherein n or p =0 and n and p are not simultaneously 0) and q = 1 (within the range q denotes an integer of 1 to 6). Furthermore, based on the formula above each of m and n is from 1 to 50 and the sum of m + n is from 4 to 100 (which overlaps the range of m being an integer of 1 or more having an average of 1 to 120 and n and p each denoting an integer of 0, 1 or more such that an average of (n+p) is 1 to 200 as recited in instant claim 1 and the range of m/(m+n+p) is 0.05 to 0.8 as recited in claim 5). Finally, based on the molecular weights and number of repeating units in the polyether above there would be an overlap of a weight average molecular weight between 500 to 10,000 as recited in claim 1 (see Abstract).

Hashimoto further discloses the use of additives to formulate the finished composition including, thickeners, dispersants, an anticorrosive, a chelating agent, a surfactant and the like (as recited in claim 6) and does not include hydrocarbon oils as another additive (as recited in claim 10) (Col. 4/L. 28-31).

Hashimoto discloses a cutting oil composition that can be used on metals for cutting and grinding wherein the polyether represented by the formula above is present in an amount of 50 wt% or more and the composition can further contain water (within the range as recited in claim 11) (Col. 3-4/L. 65-12 and Col. 6/L. 22-26).

Hashimoto further discloses that the polyether discussed above is a nonionic surfactant, but Hashimoto does not explicitly disclose the HLB of the polyether nonionic surfactant as recited in claim 1.

Hashimoto disclosed the additives discussed above including water, but does not explicitly disclose the additives enumerated in claim 9, or the oil being of a solution type or soluble type as recited in claim 12.

Takeshi discloses lubricant base oil for use as a metalworking fluid, an aluminum disk (as recited in claim 13), or cutting (Para. [0030]) comprising a polyether with a weight average molecular weight between 500 to 10,000 and an HLB of 8.5 or more (overlaps with the range of 6.1 to 16.0 as recited in claim 1) (Para. [0004]), and additives chosen from water, an antioxidant, an extreme pressure additive, a rust-proofer including fatty acid amines having carbon numbers from 2 to 36 (aliphatic carboxylic acid with a carbon number of 8 to 22 or a salt thereof as recited in claim 7) (Para. [0026]), a defoaming agent and an emulsifier (additives as recited in claim 9) and can be used as an emulsion type, a soluble type, and a solution type lubricant composition (as recited in claim 12) (Para. [0023]).

The fatty acid amine rust proofing agent is present in the composition in a range of 25 mass% or less. As discussed above the polyether of Hashimoto is present in the composition in a range of 50 wt% or more. Based on these concentrations the ratio between the fatty acid amine rust proofing agent and the polyether surfactant would be within and overlap the range as recited in claim 8.

It would have been obvious to one of ordinary skill in the art at the time of the invention to use a prepare polyether surfactant of Hashimoto with an HLB within the range of Takeshi as Takeshi teaches that surfactants with such an HLB ensure that water solubility will not worsen (Para. [0013] of Takeshi), and additionally to include the additives of Takeshi to improve the rust prevention and extreme pressure properties of Hashimoto.

Double Patenting

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an

invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claims 1 and 4-6 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-2 of copending Application No. 11/569,916. Although the conflicting claims are not identical, they are not patentably distinct from each other.

The copending application recites a rubber composition comprising 100 parts by weight rubber, 1 to 30 parts by weight of a polyether having the same structural formula as instant claim 1, an HLB of 10 or less and a weight average molecular weight of 500 to 30,000, overlapping the ranges recited in claim 1. See MPEP 2144.05(I): "In the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a prima facie case of obviousness exists. *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976);"

The copending application further comprises 10 to 180 parts by weight of a filler (additives as recited in claim 6). Based on the formula for the polyether of the copending application A could be an ethylene group (would read on claim 4 where A^2 is an ethylene group).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to VISHAL VASISTH whose telephone number is (571)270-3716. The examiner can normally be reached on M-R 8:30a-5:30p.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571)272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

VVV

/Glenn A Caldarola/
Acting SPE of Art Unit 1797